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MEMORANDUM

DATE: July 9, 1986

TO: Larry Brickman, E&E, Buffalo

FROM: Rich Fullner, ARPM, E&E, Seattle RF

SUBJ: FIT Project Description

CC: Bob King, AZPMO

Enclosed is a FIT Project Description for Resource Recovery which can be added to your collection.

RF:caj
Enclosure

FIT PROJECT DESCRIPTION

RESOURCE RECOVERY CORPORATION
FIELD INVESTIGATION
OCT. 1984 - JUNE 1986
PASCO, WASHINGTON

CLIENT: USEPA
CONTRACT: 68-01-6692

SITE DESCRIPTION AND BACKGROUND

Resource Recovery Corporation received and disposed of 50,000 drums and several million gallons of liquid industrial wastes in five burial zones at a site in Pasco, Washington between 1972 and 1974. Disposal materials included: solvent, paint, wood treatment, metal finishing, fertilizer, pesticide, herbidice production, and chlor-alkali wastes. Liquids were evaporated to dryness from both lined and unlined ponds; the remaining sludges were buried beneath at least three feet of soil covered with polyethylene sheeting and capped with an additional two feet of soil. Drums were stacked and buried beneath a similar liner and cap arrangement. Herbicide production wastes from the same source (Rhodia Chemical Corporation, Portland, Oregon) buried at a site in Oregon were found to contain numerous polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans. The United States Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology) were concerned that the drummed herbicide production wastes might be leaching outside of the burial zones.

E&E WORK EFFORTS

Field Investigation

The Field Investigation (FI) of Resource Recovery was designed to: 1) determine if wastes disposed of on-site by burial have migrated outside burial zones; 2) identify any contaminants found, and if possible, the source or sources; and 3) determine if further investigation of this site is necessary and recommend the form such future work should take based on data generated in this study. To accomplish these objectives, the FI was divided into five primary tasks.

Task 1 - Project Initiation and Management

The purposes of this task were to solicit input from appropriate EPA, Ecology, Franklin County personnel, and E&E project team members to define and initiate preparation of key project plans.

Task 2 - Initial Site Definition

The objective of this task was to obtain information and provide an initial description of the physical conditions at the Resource Recovery disposal site to develop the detailed field investigation described in Task 3.

Task 3 - Detailed Site Investigation

Objectives of this task were to provide a description of the nature and extent of chemical contamination outside burial zones at the site and to create a data base sufficient for evaluation of potential future monitoring and/or clean-up activities. To accomplish these objectives, several field activities were conducted:

- o Identification of burial zones;
- o Soil boring and installation of nine monitoring wells;
- o Subsurface soil sampling;
- o Ground water sampling from the nine new wells, five nearby existing monitoring wells, and one water supply well;
- o Submission of samples for RAS and SAS analyses by CLP laboratories and the EPA regional laboratory.

Task 4 - Site Evaluation

Compilation, summarization, and interpretation of data collected at the site during the FI, and previous investigations were the objectives of this task.

Task 5 - Field Investigation Final Report

Production of a final report detailing the results of the FI and presentation of data and conclusions in a usuable format.

Acquisition and Supervision of Subcontractor

E&E developed bid specifications, solicited and evaluated bids, and provided field supervision for all of the well drilling and disposal of drill cuttings.

Special Accomplishments:

High levels of concern regarding this site existed on local, county, and state levels. E&E personnel, together with EPA representatives, submitted the proposed work plan to various government officials for their inspection. A formal presentation to the press was covered in detail by newspapers, radio, and television stations.

Actual field work was conducted under extremely adverse heat stress conditions -- daily temperature maximums ranged from 110°F to 117°F. All work was completed efficiently and without incident.

Analyses for dioxin precursors, herbicides, and herbicide waste/production components, allowed screening of numerous samples at low analytical cost (as compared to dioxin analysis costs). The absence of precursors saved the client the cost of the unnecessary expense of dioxin analysis.

FIT personnel sought to produce the highest quality document possible, therefore, final report production required 305 hours. Because project personnel were highly aware of cost factors, one third of the work was done after hours without charge to the EPA. The computerized data base was summarized and tabulated with graphic displays designed to aid in presentation and interpretation of the results. Statistical comparisons of the data were used to identify potential source materials and their locations. The environmental fate and toxicity of the contaminants identified was discussed. Recommendations were designed to minimize the future impact of the site on the environment. The report is technically accurate and precise, and presented in an extremely readable form.

OTHER INFORMATION:

Total hours charged to project:	3078 hours
Subcontract costs:	$46,796.00
Project Manager:	Andrew Hafferty Senior Chemist Seattle E&E Office